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# United States Patent [19]

## Tam

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[54] **MULTIPLE ANTIGEN PEPTIDE SYSTEM HAVING ADJUVANT PROPERTIES, VACCINES PREPARED THEREFROM AND METHODS OF USE THEREOF**

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[58] **Field of Search** ..... 424/196.11, 197.11, 424/201.1, 208.1, 450, 193.1, 194.11, 278.1, 283.1, DIG. 16; 530/325, 326, 365, 404, 405

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[57]

### ABSTRACT

A multiple antigenic peptide system is disclosed that comprises a dendritic core and peptide and a lipophilic anchoring moiety. This particular combination has as an advantage that it eliminates the need for the inclusion of adjuvants found to be toxic to humans, and facilitates the exponential amplification of the antigenic potential of a vaccine prepared therefrom, as noncovalent amplification by a liposome or micellar form is possible. Further, multiple different antigenic peptides may be attached so that the system may be prepared for administration to concurrently treat diverse ailments, such as for example, AIDS and influenza. The present multiple antigen peptide system is capable of eliciting an immune response when injected into a mammal, and accordingly, vaccines prepared from the system and methods of use including therapeutic protocols are included.

**36 Claims, 12 Drawing Sheets**

